This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	F1x45-10 3x400	Reg. No.	012-041
Certificate Holder			
Name	Nibe AB		
Address	Box 14	Zip	S-28521
City	Markaryd	Country	Sweden
Certification Body	RISE CERT		
Name of testing laboratory	AIT		
Subtype title	F1x45-10 3x400		
Heat Pump Type	Brine/Water		
Refrigerant	R407c		
Mass Of Refrigerant	2.1 kg		

Model: F1145-10 3x400

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.64 kW	7.82 kW
El input	2.13 kW	2.51 kW
COP	4.53	3.12
Indoor water flow rate	2.07 m³/h	1.08 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	194 %	147 %
Prated	12.00 kW	10.00 kW
SCOP	5.05	3.88
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.80 kW	7.90 kW
COP Tj = -7°C	4.93	3.40
Pdh Tj = +2°C	10.00 kW	8.70 kW
COP Tj = +2°C	5.18	3.91
Pdh Tj = +7°C	10.20 kW	9.20 kW
COP Tj = +7°C	5.35	4.25
Pdh Tj = 12°C	10.40 kW	9.60 kW
COP Tj = 12°C	5.39	4.58
Pdh Tj = Tbiv	9.50 kW	8.20 kW
COP Tj = Tbiv	4.99	3.52

Pdh Tj = TOL	9.70 kW	7.60 kW
COP Tj = TOL	4.80	3.19
Cdh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	4906 kWh	5345 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	200 %	151 %
Prated	12.00 kW	10.00 kW

SCOP	5.20	3.98
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.10 kW	8.60 kW
COP Tj = -7°C	5.23	3.79
Pdh Tj = +2°C	10.20 kW	9.10 kW
COP Tj = +2°C	5.38	4.19
Pdh Tj = +7°C	10.40 kW	9.40 kW
COP Tj = +7°C	5.45	4.52
Pdh Tj = 12°C	10.40 kW	9.70 kW
COP Tj = 12°C	5.22	4.68
Pdh Tj = Tbiv	9.90 kW	8.20 kW
COP Tj = Tbiv	5.08	3.55
Pdh Tj = TOL	9.70 kW	7.60 kW
COP Tj = TOL	4.80	3.19
Cdh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	20 W
PSB	7 W	7 W
PCK	14 W	14 W

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	5695 kWh	6214 kWh

Model: F1145-10 PC 3x400

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.64 kW	7.82 kW
El input	2.13 kW	2.51 kW
COP	4.53	3.12
Indoor water flow rate	2.07 m³/h	1.08 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	45 dB(A)	45 dB(A)

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PTO	20 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	4906 kWh	5345 kWh

Colder Climate

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	Low temperature	**Medium temperature**
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Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	5695 kWh	6214 kWh

Model: F1245-10 3x400

General Data	
Power supply	3x400V 50Hz
Off-peak product	No

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.64 kW	7.82 kW
El input	2.13 kW	2.51 kW
COP	4.53	3.12
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PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	4906 kWh	5345 kWh

Colder Climate

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	Low temperature	**Medium temperature**
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PSB	7 W	7 W
PCK	14 W	14 W

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.30 kW	2.40 kW
Annual energy consumption Qhe	5695 kWh	6214 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	96 %
COP	2.40
Heating up time	1:10 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l

Colder Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	96 %
COP	2.40
Heating up time	1:10 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l

Model: F1245-10 PC 3x400

General Data	
Power supply	3x400V 50Hz
Off-peak product	No

Heating

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	Low temperature	**Medium temperature**
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El input	2.13 kW	2.51 kW
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Annual energy consumption Qhe	5695 kWh	6214 kWh

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Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	96 %
COP	2.40
Heating up time	1:10 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l

Colder Climate

EN 16147

Declared load profile	XL
Efficiency ηDHW	96 %
COP	2.40
Heating up time	1:10 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l